

ABSTRACT

A frequency-converted laser apparatus includes an optical pumping source that produces fundamental laser radiation and an external resonant cavity having one beam path direction-marked frequency conversion crystal within said resonant cavity or just beam path direction-marked frequency conversion crystals without an additional resonant cavity. The "to-be-used" direction of said frequency conversion crystal is well defined or clearly marked. The frequency converted laser radiation after said frequency conversion crystal shows better beam quality and much higher power stability if said frequency conversion crystal is used in the "to-be-used" direction.